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July—December 1983

Subject Index (A–L)

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SIX-MONTHLY INDEXES TO SCIENCE ABSTRACTS

Cumulative indexes to Science Abstracts are published twice a year covering the period January-June and July-December. They comprise author and subject indexes and some specialised or 'small' indexes. For Physics Abstracts and Electrical & Electronics Abstracts the Author Index and Subject Index are published as separate volumes. In this case the Small Indexes are included in the Author Index volume.

Cumulative author and subject indexes for preceding years are also available. For details please see inside back cover.

Subject Index

The Subject index provides an alphabetical subject key to the articles included in the abstracts journal. Some general guidance on its use is given below:

1. Look in the index for the name of the specific subject in which you are interested. In most cases this name will be a heading in the index and you will find relevant articles listed under it. The majority of the subject headings fall into the following catagories: property, phenomena, substance or named objects, instrument, device, theory, method, process, application, event.

2. Occasionally you will be directed from the subject heading chosen to a different heading under which the relevant or additional articles are listed.

3. If you do not find the subject heading you first chose, try a more general heading.

4. Each entry under the heading relates to an article appearing in the abstracts journal and gives the serial number of that article in the journal preceded by the last digit of the current year, e.g. 3-12345; i.e. Abstract number 12345 in the abstracts journal for 1983.

The language of the article, if it is not in English, is also indicated. e.g. C fibre-reinforced Al, viscosity in glass graining process (Japanese) 3-58078.

Each entry starts with a Keyword or Keyphrase considered to be most relevant to the heading. On sorting these Keywords, the qualifying prefixes are usuallly ignored. (e.g. α-brass, 5-sulphosalicylic, 31 Cygni, n-Ge are sorted under brass, sulphosalicylic, Cygni, Ge respectively).

There are three main Keyword lists; alphabetical A-Z, elementary particles, and chemical symbols (organic substances are written and not given as chemical formula). More than one Keyword list may be present under each subject heading.

For document on, say, 'photoemission of germanium' at least two access points 'photoemission' and germanium' are provided. Under the heading 'photoemission' the Keyword will be 'Ge' and under 'germanium' the Keyword will be 'photoemission'.

In a case like this, it is advisable and quicker to use the heading 'photoemission' and go straight to the chemical symbol list for 'Ge'.

Intermetallic compounds are indexed under the appropriate alloy headings. The chemical formula is used as Keyword. However, it is important to realise in searching the chemical symbol list that, at present, alloys and intermetallic compounds are sorted separately. For example FeCo is sorted at the end of the Fe- list e.g. Fe-Al, ... Fe-Co, ... Fe-Si, ... Fe-Si-B,... FeCo, ... FeSi and so on in this order.

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Abbreviations and Acronyms

Abbreviations and acronyms are used in the modifiers in all INSPEC Cumulative Subject Indexes. Individual terms should be readily understood in the context of the subject headings. **Inorganic substances** are usually given by their chemical formulae. Iron and aluminium garnets appear in the formulae lists as MIG and MAG (where M is metal element, e.g. YIG and YAG); $(Pb,La)(Zr,Ti)O_3$, $Pb(Zr,Ti)O_3$ and $Ce_2Mg_3(NO_3)_{12}$ appear as PLZT, PZT and CMN respectively. **Organic substances** including **liquid crystals** are not given as formulae but common abbreviations are used.

ABS resin	acrylonitrile-butadiene-styrene
AC	alternating current
ACV	air cushion vehicle
A/D	analogue-to-digital
ADC	analogue digital conversion
ADP	administrative data processing
AE	acoustic emission
AEC	atomic electron correlation(s)
AES	Auger electron spectra(oscopy)
AF	audio frequency
AFC	automatic frequency control
AFL	abstract family of languages
AFMR	antiferromagnetic resonance
AGC	automatic gain control
AGR	advanced gas-cooled reactor
ALARA	as low as reasonably achievable
ALU	arithmetic logic unit
AM	amplitude modulation
APACHE	accelerator for physics and chemistry of heavy elements
APR	acoustic paramagnetic resonance
APS	appearance potential spectra(oscopy)
APW	augmented plane wave
ARMA	autoregressive moving average
ASCII	American standard code for information exchange
ATC	air traffic control
ATE	automatic test equipment
ATM	Axilrod-Teller-Moto
ATR	attenuated total reflection
ATWS	anticipated transients without scram
AVC	automatic volume control
BARITT	barrier injection transit time
BBEA	4-butoxybenzal-4′-ethylaniline
BBGKY	Bogoliubov-Born-Green-Kirkwood-Yvon
BCC	body centred cubic
BCD	binary-code decimal
BCS	Bardeen-Cooper-Schrieffer
BFL	buffered FET logic
BFO	beat-frequency oscillator
BH	buried heterostructure
BWO	backward wave oscillator
BWR	boiling water reactor
BWT	backward wave tube
C^3L	complementary constant current logic
CAD	computer aided design
CANDU	Canadian deuterium uranium
CAE	computer aided engineering
CAI	computer assisted instruction
CAM	computer aided manufacturing
CARS	coherent antiStokes Raman scattering (spectra)
CATV	community antenna TV
CB	citizen band
CBI	computer based instruction
CBOOA	cyanobenzylidene octyloxyaniline
CCBA	coupled channel Born approximation
C-CD	charge-coupled device
CCL	capacitor-coupled logic
CDFR	commercial demonstration fast reactor
CDI	collector diffusion isolation
CDM	code division multiplexing
CDW	charge-density wave
CEM	channel electron multiplier
CEPA	coupled electron pair approximation
CERN	Conseil Européen pour la Recherche Nucléaire
CESR	conduction electron spin resonance
CGTO	contracted Gaussian-type orbital
CHF	coupled Hartree-Fock
CI	configuration interaction
CIDEP	chemically induced dynamical electron polarisation
CIDNP	chemically induced dynamical nuclear polarisation
CIEH	charge iterated extended Huckel
CIHY	configuration interaction Hylleras
CIM	constituent interchange model
CMI	computer managed instruction
CML	current-mode logic
CMOS	complementary metal-oxide-semiconductor
CNC	computerised numerical control
CNDO	complete neglect of differential overlap
COC	cholesteryl oleyl carbonate
COM	computer output to microform (fiche or film)
COOB	4,4′-cyano-octyloxy-biphenyl
CP	charge, parity
CPA	coherent potential approximation
CPA	critical path analysis
CPM	critical path method
CPSK	coherent phase shift keying
CPT	charge, parity, time
CPU	central processing unit
CRO	cathode ray oscilloscope
CRSR	coherent resonant Stokes rotation
CRT	cathode ray tube
CS	coupled states
CSL	current-sinking logic
CSL	current-sourcing logic
CSM	continuous slowing down models
CSRS	coherent Stokes-Raman spectra(oscopy)
CT	computerised tomography
CTL	complementary-transistor logic
CTR	controlled thermonuclear reactor
CVD	chemical vapour deposition
CW	continuous wave
D/A	digital-to-analogue

DAC	digital analogue conversion
DBMS	database management system
DBR	distributed Bragg reflector
DC	direct current
DCFL	direct-coupled FET logic
DCTL	direct-coupled transistor logic
DDC	direct digital control
DDL	diode-diode logic
DECENT	distribution of exact classical energy transfer
DESY	Deutsches Electron Synchrotron
DF	Dirac-Fock
DFB	distributed feedback
DH	double heterostructure
DIL	dual-in-line
DIP	dual in-line package
DITE	divertor in torus experiment
DLTS	deep level transient spectra(oscopy)
DM	delta modulation
DMA	direct memory access
DMM	digital multimeter
DMOS	double diffused metal-oxide-semiconductor
DMSO	dimethylsulphoxide
DNA	deoxyribonucleic acid
DNMR	double nuclear magnetic resonance
DOBAMBC	p-decyloxybenzylidene p′-amino 2-methyl butyl cinnamate
DOD	different orbitals for different spins
DORIS	Dopple-ring-Speicher
DOS	disc operating system
DOVETT	double velocity transit time
DP	data processing
DPCM	differential pulse code modulation
DPPH	diphenylpicrylhydrazyl
DPSK	differential phase shift keying
DSAM	Doppler shift attenuation method
DSC	differential scanning calorimetry
DTA	differential thermal analysis
DTL	diode transistor logic
DTU	dual topological unitarisation
DVM	digital voltmeter
DV-Xα	discrete variational Xα method
DWBA	distorted wave Born approximation
DWIA	distorted wave impulse approximation
E1,E2	electric dipole, quadrupole
E^2PROM	electronically erasable read-only-memory
EAROM	electronically alterable read-only-memory
EAS	extensive air shower
EB	exponential Born
EBBA	4-ethoxybenzylidene-4′n-butylaniline
EBIC	electron beam induced current(s)
EBR	experimental breeder reactor
EBT	Elmo Bumpy Torus
ECCM	electronic counter-counter measures
ECCS	emergency core cooling system
ECELR	epithermal critical experiment laboratory reactor
ECG	electrocardiography (-gram)
ECL	emitter coupled logic
ECM	electronic countermeasures

EDA	ethylene diamine
EDP	electronic data processing
EDTA	ethylene diamine tetra-acetic acid
EEBAC	ethyl-4-(4′ethoxy-benzylidene-amino) cinnamate
EEG	electroencephalography (-gram)
EELS	electron energy loss spectra(oscopy)
EEPROM	electrically erasable programmable read-only-memory
EFL	emitter-follower logic
EFL	emitter-function logic
EFM	extended Flygare method
EFT	electronic funds transfer
EHD	electrohydrodynamics
EHF	extremely high frequency
EHP	electron-hole potential method
EHT	extended Huckel theory
EHV	extra high voltage
ELDOR	electron electron double resonance
ELF	extremely low frequency
EM	electromagnetic
EMC	electromagnetic compatibility
EMF	electromotive force
EMG	electromyography (-gram)
EMI	electromagnetic interference
EMP	electromagnetic pulse
ENDOR	electron nuclear double resonance
ENG	electronic newsgathering
EOF	end of file
EPEN	empirical potential energy function based on interactions of electrons and nuclei
EPMA	electron probe microanalysis
EPR	electron paramagnetic resonance
EPRI	Electric Power Research Institute
EPROM	erasable programmable read-only-memory
ERG	electroretinography (-gram)
ESCA	electron spectroscopy for chemical analysis
ESCAR	experimental superconducting accelerating ring
ESFI	epitaxial silicon film on insulator
ESS	electronic switching system
EUV	extreme ultraviolet
EW	electronic warfare
EXAFS	extended X-ray absorption fine structure
EX-OR	exclusive-OR (logic)
FAMOS	floating gate avalanche metal-oxide-semiconductor
FBR	fast breeder reactor
FCC	face centred cubic
FDM	frequency division multiplex(ing)
FDNC	frequency dependent negative conductance
FDNR	frequency dependent negative resistance
FECL	feedback ECL
FEM	field emission microscopy
FET	field effect transistor
FFHR	fusion-fission hybrid reactor
FFT	fast Fourier transform

FFTF	fast flux test facilities
FHNC	Fermi hypernetted chain
FIM	field ion microscopy
FIMOS	floating gate ionisation injection metal-oxide-semiconductor
FIR	finite impulse response
FM	frequency modulation
FMIT	fission materials irradiation test facility
FMR	ferromagnetic resonance
FMSR	fast mixed spectrum reactor
FPT	finite perturbation theory
FPLA	field programmable logic array
FSK	frequency-shift keying
FSGO	floating spherical Gaussian orbitals
FTR	fast test reactor
GAMBIT	gate modulated bipolar transistor
GANIL	grand accelerateur national a ions Lourds
GCFR	gas-cooled fast breeder reactor
GCM	generator coordinate method
GDR	giant dipole resonance
GHF-NO-CI	generalised Hartree-Fock/natural orbital/configuration interactions
GIAO	gauge-invariant atomic orbitals
GMR	giant monopole resonance
GO	Gaussian orbitals
GOO	generalised Overhauser orbitals
GPM	ground potential model
GQR	giant quadrupole resonance
GRIN	graded (gradient) refractive index
GSPC	gas scintillation proportional chamber (or counter)
GTO	Gaussian-type orbitals
GUT	grand unified theory
GVB	generalised valence bond
HAM	hydrogenic atoms in molecules
HBAB	hexyloxybenzylidene-p′-aminobenzonitrile
HBT	N-(p-hexyloxybenzylidene)-p-toluidene
HCDA	hypothetical core disruptive accident
HCP	hexagonal close packed
HEED	high energy electron diffraction
HEMP	high altitude electromagnetic pulse
HEMT	high electron mobility transistor
HF	high frequency or Hartree-Fock
HFB	Hartree-Fock-Bogoliubov
HFEF	hot fuel examination facility
HFIR	high flux isotope reactor
HFO	Hartree-Fock-Overhauser
HFS	hyperfine structure
HGMS	high gradient magnetic separation
HIXE	heavy ion induced X-ray emission
HJFET	heterojunction field effect transistor
HLW	high level waste (radioactive)
HMO	Huckel molecular orbitals
HMTSeF	hexamethylenetetraselenafulvalene (-inium)
HMTTF	hexamethyltetrathiofulvalene(-inium)
HOAB	heptyloxyazoxybenzene

HOBHA	p-n-heptyloxy-benzylidene-p-n-heptylaniline
HOMO	highest occupied molecular orbitals
HTGR	high temperature gas-cooled reactor
HV	high voltage
HVDC	high voltage direct current
HVEM	high voltage electron microscopy
HWR	heavy water reactor
IAEA	International Atomic Energy Authority Agency
IAR	isobaric analogue resonance
IAS	isobaric analogue state
IBA	interacting boson approximation
IBFA	interacting boson-fermion approximation
IBM	interacting boson model
IBPBAC	isobutyl-4-(4′-phenylbenzylideneamino) cinnamate
IC	integrated circuit
ICDF	intermediate coupling Dirac-Fock
ICF	inertial confinement fusion
IDT	interdigital transducer
IEPA	independent electron pair approximation
IETS	inelastic electron tunnelling spectra-(oscopy)
IF	intermediate frequency
IFA	ionisation front accelerator
IGFET	insulated gate field effect transistor
IIR	infinite impulse response
IKO	Institute v. Kernph Ouder Amsterdam
I^2L	integrated injection logic
I^3L	isoplanar I^2L
ILS	instrument landing system
IMPATT	impact avalanche transit time
INDO	intermediate neglect of differential overlap
INDOR	internuclear double resonance
ING	intense neutron generator
INO	iterative natural orbital
INTELSAT	international telecommunications satellite consortium
I/O	input/output
IOC-ω	inclusion of the overlap charges in the omega
IPSS	international packet switching service
IR	infrared
IRDO	intermediate retention of differential overlap
IREB	intense relativistic electron beam
IRED	infrared emitting diode
IRS	information retrieval system
ISABELLE	intersecting storage and acceleration
ISDN	integrated services digital network
ISFET	ion-sensitive field effect transistor
ISL	integrated Schottky logic
ISR	intersecting storage ring
ISX	impurity study experiment
ITC	ionic thermocurrents
ITEP	Institute of Theoretical and Experimental Physics
ITR	ignition test reactor
IU	Indiana University

IVO	improved virtual orbitals
JAERI	Japan Atomic Energy Research Institute
JET	Joint European torus
JFET	junction field effect transistor
JINR	Joint Institute for Nuclear Research
KdV	Korteweg-de Vries
KEK	Japan National Laboratory for High Energy Physics
KKR	Korringa-Kohn-Rostoker
LAMPF	Los Alamos meson physics facility
LC	inductance-capacitance
LCAO	linear combination of atomic orbitals
LCBO	linear combinations of (semi-localised) band orbitals
LCD	liquid crystal display/device
LCGO	linear combination of Gaussian orbitals
LCP	large coil program
LCRO	linear combination of Rydberg orbitals
LEC	liquid encapsulated Czochralski
LED	light emitting diode
LEED	low energy electron diffraction
LEP	large electron positron
LET	linear energy transfer
LF	low frequency
LMC	Large Magellanic Cloud
LMFBR	liquid metal fast breeder reactor
LMTO	linear combination of muffin tin orbitals
LNG	liquified natural gas
LOCA	loss of coolant accident
LOCE	loss of coolant experiment
LOCOS	local oxidation of silicon
LOFT	loss of flow test facility
LPE	liquid phase epitaxy
LPFL	low pinchoff-voltage FET logic
LSA	limited space charge accumulation
LSD	local spin density
LSI	large-scale integration
LTE	local thermodynamic equilibrium
LUMO	lowest unoccupied molecular orbitals
LV	low voltage
LWBR	light water breeder reactor
LWR	light water reactor
MADO	Mulliken approximation for differential overlap
M1,M2	magnetic dipole, quadrupole
MBBA	4-methoxybenzylidene-4′-n-butylaniline
MBE	molecular beam epitaxy
MBPT	many body perturbation theory
MCD	magnetic circular dichroism
MCP	microchannel plate
MCSCF	multiconfiguration self-consistent-field
MCPESCF	multiconfiguration paired excitation SCF
MCZDO	multi-centre zero differential overlap
MCXα	multiconfiguration Xα
MEC	molecular electron correlation(s)
MEDO	multipole expansion of diatomic overlap
MESFET	metal-semiconductor field effect transistor
MF	medium frequency
MFP	mean free path
MHD	magnetohydrodynamics
MIC	microwave integrated circuit
MID	magnetically insulated diode
MIDP	microwave induced delayed phosphorescence
MIEHM	modified iterative extended Huckel method
MIM	metal-insulator-metal
MIMD	multiple input multiple data
MIS	metal-insulator-semiconductor or management information system
MIT	Massachusetts Institute of Technology
MM	millimetre
MMF	magnetomotive force
MMIC	monolithic microwave integrated circuit
MNOS	metal-nitride-oxide-semiconductor
MO	molecular orbitals
MOCIC	molecular orbital constraint of interaction coordinates
MOCVD	metal-organic chemical vapour deposition
MODPOT	model potential
MOS	metal-oxide-semiconductor
MOSFET	metal-oxide-semiconductor field effect transistor
MOST	metal-oxide-semiconductor transistor
MRD	multi-reference double excitation
MRINDO	modified Rydberg INDO
MS	management science
MSI	medium scale integration
MSK	minimum shift keying
MSR	molten salt reactor
MSU	Michigan State University
MSW	magnetostatic waves
MTBF	mean-time between failures
MTF	modulation transfer function
MTL	merged-transistor logic
MTXα	muffin-tin Xα
MUF	maximum usable frequency
MWPC	multiwire proportional chamber
NAL	National Accelerator Laboratory
NAND	not-and(logic)
NC	numerical control
NCMET	non-closed shell many electron theory
NDDO	neglect of diatomic differential overlap
NDT	nondestructive testing
NEMO	non-empirical molecular orbitals
NEVE	non-empirical valence-electron
NHS	National Health Service
NIC	negative impedance convertor
NMOS	N-channel metal-oxide-semiconductor
NMR	nuclear magnetic resonance
NMR-ON	NMR on oriented nuclei
NNNDO	neglect of non-neighbour differential overlap
NOR	not-or(logic)

NQR	nuclear quadrupole resonance
NRC	nuclear regulatory committee
NRM	natural remanent magnetisation
NSSS	nuclear steam supply system
NTL	nonthreshold logic
NTO	natural transition orbitals
OCR	optical character recognition
ODMR	optical detection of magnetic resonance
OEM	original equipment manufacture
OER	oxygen enhancement ratio
OPHF	orbital polarised Hartree-Fock
OPW	orthogonal plane wave
OR	operations research
ORELA	Oak Ridge electron linear accelerator
ORNL	Oak Ridge National Laboratory
OS	operating system
OTEC	ocean thermal energy conversion
OTF	optical transfer function
PAA	paraazoxyanisole
PABX	private automatic branch exchange
PAC	perturbed angular correlation
PAHR	post accident heat removal
PAM	pulse amplitude modulation
PAP	paraazoxyphenetole
PBF	power bursts facility
PBR	pebble bed reactor
PBT	permeable base transistor
PBX	private branch exchange
PC	printed circuit
PCAC	partially conserved axial currents
PCB	printed circuit board
PCES	phase change energy storage
PCGVB	pairwise correlated generalised valence bond
PCILOCC	perturbative configuration interaction using localised orbitals for crystal calculation
PCM	pulse code modulation
PCRV	prestressed concrete reactor vessel
PCX	plasma confinement experiment
PDX	poloidal divertor experiment
PEM	photoelectromagnetic
PEP	positron electron proton
PET	polyethylene terephthalate
PETRA	positron electron tandem ringbeschleuniger anlage
PF	power factor
PFM	pulse frequency modulation
PFR	prototype fast reactor
PHWR	pressurised heavy water reactor
PID(PI,PD)	proportional+integral+differential (derivative)
PIXE	proton induced X-ray emission
PLA	phase locked arrays or programmable logic array
PLBR	prototype large breeder reactor
PLC	programmable logic control
PLL	phase locked loops
PLT	Princeton Large Torus
PM	pulse modulation
PMMA	polymethylmethacrylate
PMDR	phosphorescence microwave double resonance
PMOS	P-channel metal-oxide-semiconductor
PMR	proton magnetic resonance
PNDO	partial neglect of differential overlap
PNO-CI	pair natural orbital configuration interaction
POL	pair orthogonalised Lowdin
POPAE	protons on protons and electrons
POPOP	phenyl-oxazolyl-phenyl-oxazolyl-phenyl
POS	point of sale
PPDP/S	Pariser-Parr-Del Bene-Pople/Segal calculations
PPI	plan position indicator
PPM	pulse position modulation or parts per million
PPP	Pariser-Parr-Pople
PRDDO	partial retention of diatomic differential overlap
PRF	pulse recurrence (repetition) frequency
PROM	programmable read-only-memory or Pockels readout optical modulator
PS	proton synchrotron (CERN)
PSK	phase shift keying
PTFE	polytetrafluoroethylene
PTM	pulse time modulation
PVC	polyvinyl chloride
PWA	partial wave analysis
PWB	printed wiring board
PWBA	plane wave Born approximation
PWIA	plane wave impulse approximation
PWM	pulse width modulation
PWR	pressurised water reactor
QAM	quadrature amplitude modulation
QCD	quantum chromodynamics
QDMBPT	quasi-degenerate many-body perturbation theory
QED	quantum electrodynamics
QPM	quark-parton model
QPSK	quaternary phase shift keying
RAM	random access memory
RBE	relative biological effectiveness
RC	resistance-capacitance
RCNDO	Rydberg CNDO
RCS	rapid cycling synchrotron
RCTL	resistor-capacitor-transistor logic
R & D	research and development
RF	radio frequency
RFI	radio frequency interference
RG	renormalisation group
RHEED	reflection high energy electron diffraction
RHF	restricted Hartree-Fock
RINDO	Rydberg INDO
RKKY	Rudermann-Kittel Kasuya-Yosida
RLC	resistance-inductance-capacitance
RMS	root-mean-square
RNA	ribonucleic acid
ROM	read-only memory
RPA	random phase approximation

RPAE	random phase approximation with exchange
RPM	relaxation potential model or revolutions per minute
RPV	reactor pressure vessel
RTG	radioisotope thermoelectric generators
RTL	resistor-transistor logic
SACCI	symmetry adapted cluster configuration interaction
SAMO	simulated ab initio molecular orbitals
SAR	synthetic aperture radar
SAW	surface acoustic waves
SCC	stress corrosion cracking
SCF	self consistent field
SCFL	source-coupled FET logic
SCL	space charge limited
SCPT	self consistent perturbation theory
SCR	silicon controlled rectifier
SDFL	Schottky-diode FET logic
SDM	space division multiplexing
SDO	shielded diatomic orbitals
SED	stochastic electrodynamics
SEHF	spin extended Hartree-Fock
SEM	scanning electron microscopy
SFE	solar-flare effect
SFL	substrate fed logic
SGEMP	system generated electromagnetic pulse
SGHWR	steam generating heavy water reactor
SHF	superhigh frequency
SHG	second harmonic generation
SICOS	sidewall base contact structure
SIMOS	stacked-gate injection metal-oxide-semiconductor
SIMS	secondary ion mass spectra(oscopy)
SIN	Swiss Institute of Nuclear Research
SINDO	scaled INDO
SIS	semiconductor-insulator-semiconductor
SISAM	spectrometer with interference selective amplitude modulation
SIT	static induction transistor
SMC	Small Magellanic Cloud
S/N	signal-to-noise
SOG	strongly orthogonal geminal
SOS	silicon on sapphire
SPA	separated pair approximation
SPC	stored program control
SPEAR	Stanford positron electron asymmetric ring
SPHF	spin polarised Hartree-Fock
SPIN-CIPSI	spin symmetry adapted generalisation of CIPSI
SPS	super proton synchrotron (CERN)
SREMP	source region electromagnetic pulse
SQUID	superconducting quantum interference device
SRMCASE	symmetry-restricted-multiconfiguration annihilation of single excitations
SSB	single sideband
SSBW	surface skimming bulk wave
SSC	sudden storm commencement
SSFL	Schottky-barrier coupled Schottky-barrier gate FET logic
SSI	small scale integration
SST	supersonic transport
STD	salinity-temperature-depth or subscriber trunk dialling
STEC	solar thermal energy conversion
STEM	scanning transmission electron microscopy
STL	Schottky transistor logic
STO	Slater-type orbitals
STOL	short take-off and landing
STP	Slater-transfer Preuss
SUSY GUT	supersymmetric grand unified theory
SW	short wave
SWR	standing wave ratio
SXAPS	soft X-ray appearance potential spectrum
TASI	time assignment speech interpolation
TBBA	terephthal-butylaniline
TCNE	tetracyanoethylene
TCNQ	tetracyanoquinodimethane
TCR	temperature coefficient of resistance
TDHF	time dependent Hartree-Fock
TDM	time division multiplex(ing)
TDMA	time division multiple access
TDMF	time dependent mean field theory
TDPAC	time differential perturbed angular correlation
TDS	thermal desorption spectra(oscopy)
TE	transverse electric
TEA	transversely excited atmosphere
TEGFET	two-dimensional electron gas field effect transistor
TEM	transverse electromagnetic or transmission electron microscopy
TEXT	Texas Experimental Tokamak
TFTR	Tokamak fusion test reactor
TGA	thermogravimetric analysis
TGFB	triglycine fluoroberyllate
TGS	triglycine sulphate
TGSe	triglycine selenate
TJS	transverse junction stripe
TLD	thermoluminescent dosimeter(-ry)
TM	transverse magnetic
TMI	Three Mile Island
TMMC	tetramethylammonium manganese chloride
TMTSeF	tetramethyltetraselenafulvalene(-inium)
TMTTF	tetramethyltetrathiofulvalene
TOP	transient overpower accident
TNS	The Next Step
TPC	time projection chamber
TRAPATT	trapped plasma avalanche triggered transit
TREAT	transient reactor test facility
TRM	thermoremanent magnetisation
TSC	thermally stimulated currents
TSEE	thermally stimulated exo-electron emission
TSeF	tetraselenafulvalinium
TSeT	tetraselenatetracene
TTF	tetrathiofulvalinium

TTL	transistor transistor logic
TTT	tetrathiotetracene
TUCA	transient undercooling accident
TV	television
TW	travelling wave
TWT	travelling wave tube
UART	universal asynchronous receiver/transmitter
UCHF	uncoupled Hartree-Fock
UCN	ultra cold neutrons
UHF	ultra high frequency or unrestricted Hartree-Fock
UHPS	underground hydroelectric pumped storage
UHV	ultra high voltage
UKAEA	United Kingdom Atomic Energy Authority
ULA	uncommitted logic array
ULF	ultra low frequency
UMD	unitised microwave devices
UPS	ultraviolet photoelectron spectra
US	ultrasonic
UV	ultraviolet
VAD	vapour phase axial deposition
VB	valence bond
VCR	video cassette recorder
VDM	vector dominance model
VDU	visual display unit
VHF	very high frequency
VHSIC	very high speed integrated circuit
VLBI	very long base line interferometry
VLF	very low frequency
VLSI	very large scale integration
VMOS	vertical channel metal-oxide-semiconductor
VOR	VHF omnidirectional range
VPE	vapour phase epitaxy
VRC	visual record computer
VRDDO	variable retention of diatomic differential
VS	virtual storage
VSB	vestigial sideband
VSEPR	valence shell electron pair repulsion
VSWR	voltage standing wave ratio
VTOL	vertical take-off and landing
VTR	voltage transformation ratio or video tape recorder
VUV	vacuum ultraviolet
VVER	water moderated water cooled reactors
WARC	World Administrative Radio Conference
WDM	wavelength division multiplex(ing)
WKB	Wentzel-Kramers-Brillouin
WP	word processing
WWER	water moderated water cooled reactors
XPS	X-ray photoelectron spectra
ZEBRA	zero energy breeder reactor assembly
ZGS	zero gradient synchrotron
ZPPR	zero power plutonium reactor

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AFC *see automatic frequency control*

AFMR *see antiferromagnetic resonance*

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carrier concentration *see carrier density*

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crystal microstructure

for microstructural changes, see also phase transformations, hardening, heat treatment, metalworking

see also crystal defects; crystal inclusions; crystallites; dendritic structure; domain boundaries; domains; electron microscope examination of materials; eutectic structure; grain boundaries; grain size; Guinier-Preston zones; mosaic structure (microstructure); noncrystalline state structure; precipitation; segregation; subboundary structure; superlattices; texture; X-ray diffraction examination of microstructure

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e.e.g. *see electroencephalography*

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f.e.t. *see field effect transistors*
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genetics *see cellular biophysics*

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lattice dynamics

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LPE *see liquid phase epitaxial growth*

LS coupling *see Russell-Saunders coupling*

LSA *see limited space charge accumulation*

LSI *see large scale integration*

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Ludwig-Soret effect *see diffusion in solids*

luminance *see brightness*

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